

MTP 15HD A Series

MTP - MINI TWISTED PAIR TRANSMITTERS & RECEIVERS
FOR COMPUTER VIDEO & AUDIO



MTP T 15HD A D



MTP T 15HD A WM



MTP T 15HD A AAP



MTP T 15HD A



MTP RL 15HD A



MTP R 15HD A



MTP RL 15HD A SEQ

- Sends and receives high resolution video and summed mono audio signals 600 feet (185 meters) or more over a single UTP cable
- Supports RGBHV, RGBS, RGsB, RsGsBs, component video, S-video, and composite video
- Compatible with HDTV component video, bi-level or tri-level sync
- LED power indicator on front panel
- Continuously variable level and peaking controls on the receivers
- Buffered UTP loop output, MTP RL models only
- Skew delay equalizer provides RGB delay compensation, MTP RL 15HD A SEQ only
- Versatile mounting options
- External international power supply included, part # 70-055-01

The Extron MTP 15HD A Series consists of economical, compact MTP - Mini Twisted Pair transmitters and receivers for sending high resolution computer-video and audio signals long distances over a single twisted pair cable.



Extron® Electronics

www.extron.com

DESCRIPTION

The Extron **MTP 15HD A Series** is a versatile family of mini twisted pair transmitters and receivers for transmitting high resolution computer-video and summed mono audio signals long distances to presentation displays over a single unshielded twisted pair cable. They are compatible with resolutions up to 1600 x 1200 and will support cable runs of 600 feet (185 meters) or more with XGA signals, and 450 feet (135 meters) or more with UXGA signals.

The MTP 15HD A Series is ideal for systems where high resolution video signals must be transmitted long distances to a display, where space is limited in conduit, or for systems where cabling might be exposed or visible. Ideal applications include public information displays at airports, museums, movie theaters, and hotels.

MTP 15HD A Models

MODEL	TYPE	FEATURES		
		Level & Peaking Controls	Buffered UTP Loop Output	Skew Delay Equalizer
MTP T 15HD A	Transmitter			
MTP R 15HD A	Receiver	✓		
MTP RL 15HD A	Receiver	✓	✓	
MTP RL 15HD A SEQ	Receiver	✓	✓	✓

Compact Transmitters and Receivers

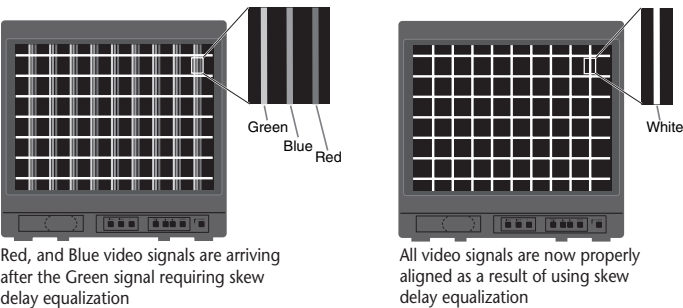
The MTP T 15HD A, MTP T 15HD A WM, MTP T 15HD A AAP, and MTP T 15HD A D transmitters send RGBHV high resolution video and audio signals to a compatible MTP R 15HD A, MTP RL 15HD A, or MTP RL 15HD A SEQ receiver. All three MTP 15HD A receiver models offer separate, continuously variable level and peaking adjustments that precisely optimize image quality for various UTP cable lengths.

A Complete Twisted Pair System

The MTP 15HD Series is a complete twisted pair system, including transmitters, receivers, and switches, providing the ability to distribute high resolution video, audio, and control signals over UTP cable. For more information on these and other Extron twisted pair products, contact your Extron Customer Support Representative.

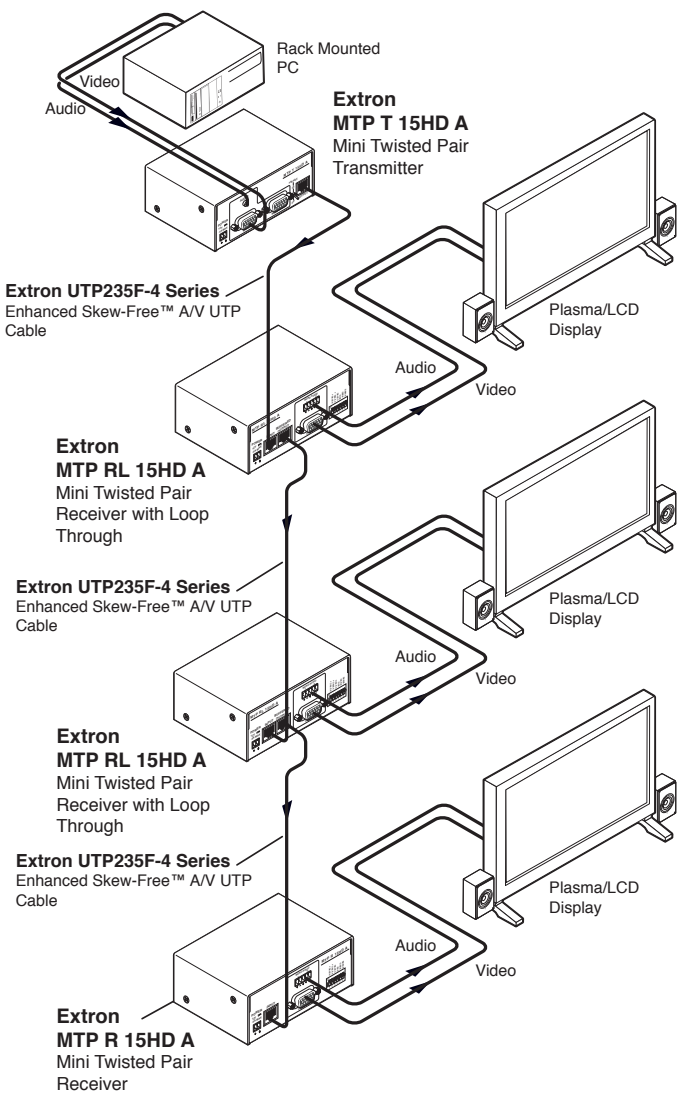
Correcting Skew

When using data grade twisted pair cable for sending high-resolution video signals long distances, a problem called skew can cause a distortion in the image, resulting in visible color separation. Extron offers several options for solving this problem and restoring image quality. One option is to place an SEQ 100 BNC Skew Equalizer at the receiving end of any cable run where skew is a problem, or use a receiver with built-in skew compensation. Another option is to use Extron's Enhanced Skew-Free™ A/V UTP cable to make system connections.



FEATURES

- Sends and receives high resolution video and summed mono audio signals 600 feet (185 meters) or more over a single UTP cable
- Supports RGBHV, RGBS, RGsB, RsGsBs, component video, S-video, and composite video
- Compatible with HDTV component video, bi-level or tri-level sync
- LED power indicator on front panel
- Continuously variable level and peaking controls on the receivers
- Buffered UTP loop output, MTP RL models only
- Skew delay equalizer provides RGB delay compensation controls, MTP RL 15HD A SEQ only
- Versatile mounting options
- External international power supply included, part # 70-055-01



MTP 15HD A SERIES TRANSMITTER MODELS

Extron MTP 15HD A Series transmitters send RGBHV, RGBS, RGsB, HDTV, and other high resolution video and audio signals to a compatible MTP 15HD A receiver. There are four models of transmitters in the series. Each model accepts high resolution video on a female 15-pin HD connector and audio signals on a 3.5 mm stereo audio jack.

Versatile Mounting Options

The MTP 15 HD A features a compact, rack- or table-mountable metal enclosure with a buffered local monitor output for systems that

require a local display. The other three models are designed to blend into the surrounding environment, while providing easy access to cable connections.

Pre-Peaking Circuit

All four transmitter models feature a pre-peaking switch that provides additional compensation at the front end to optimize signal quality over long cable runs.

MTP T 15HD A

MTP - Mini Twisted Pair Transmitter for RGBHV and Audio

UNIQUE FEATURES:

- Pre-peaking circuit for optimizing video signal on long cable runs
- Buffered local monitor output



MTP T 15HD A WM

MTP - Mini Twisted Pair Transmitter for RGBHV and Audio for One-Gang Wall Box

UNIQUE FEATURES:

- Pre-peaking circuit for optimizing video signal on long cable runs
- Mounts in a standard one-gang electrical box



MTP T 15HD A D

MTP - Mini Twisted Pair Transmitter for RGBHV and Audio - Decora® Version

UNIQUE FEATURES:

- Pre-peaking circuit for optimizing video signal on long cable runs
- Mounts in Decora-style wall plate, included



MTP T 15HD A AAP

MTP - Mini Twisted Pair Transmitter for RGBHV and Audio - AAP Module

UNIQUE FEATURES:

- Pre-peaking circuit for optimizing video signal on long cable runs
- Mounts in Extron products that accept a double space AAP - Architectural Adapter Plate



MTP 15HD A SERIES RECEIVER MODELS

Extron MTP 15HD A Series receivers accept proprietary high resolution RGBHV video and audio signals from any MTP 15HD A Series transmitter. MTP 15HD A Series receivers are compact so they can fit just about anywhere: in equipment racks, or under tables and desktops.

Continuously Variable Level and Peaking Adjustments

All three MTP 15HD A receiver models offer separate continuously variable level and peaking adjustments that precisely optimize image quality for various UTP cable lengths, allowing users to dial in the exact amount of gain and peaking required for each unique cable run.

Buffered Loop Through

The MTP RL 15HD A Mini Twisted Pair Receiver with Loop Through features an added female RJ-45 buffered output, enabling up to eight receivers to be connected in series, reducing the number of parallel cable runs required.

Integrated Skew Delay Equalizer

The MTP RL 15HD A SEQ includes the loop through capabilities, and also features an integrated skew delay equalizer. Skew delay is the color misalignment present in twisted pair A/V systems using Category 5, 5e or 6 cable in which the red, green, and blue video signals arrive to the display at different times. Using Extron's skew delay equalizer technology, the arrival of color signals is synchronized, improving image quality while maintaining full signal integrity.

MTP R 15HD A

MTP - Mini Twisted Pair Receiver for RGBHV and Audio

UNIQUE FEATURES:

- Continuously variable level and peaking controls



MTP RL 15HD A

MTP - Mini Twisted Pair Receiver for RGBHV and Audio with Loop Through

UNIQUE FEATURES:

- Continuously variable level and peaking controls
- Buffered UTP output for daisy-chaining up to eight receivers



MTP RL 15HD A SEQ

MTP - Mini Twisted Pair Receiver for RGBHV and Audio with Loop Through and Skew Delay Equalizer

UNIQUE FEATURES:

- Continuously variable level and peaking controls
- Buffered UTP output for daisy-chaining up to eight receivers
- Independent skew delay compensation adjustments for each color



SPECIFICATIONS

VIDEO

Gain	Unity
Number/signal type	1 set of proprietary analog signals
Connectors	1 female RJ-45

VIDEO INPUT AND LOOP THROUGH – TRANSMITTERS

Number/signal type	
MTP T 15HD A	1 analog RGBHV, RGBS, RGsB, RsGsBs, component video, S-video, or composite video
MTP T 15HD A AAP/D/WM.....	1 buffered RGBHV, RGBS, RGsB, RsGsBs local monitor loop through (includes ID bits)
MTP T 15HD A AAP/D/WM.....	1 analog RGBHV, RGBS, RGsB, RsGsBs, component video, S-video, or composite video
Connectors	
MTP T 15HD A	2 female 15-pin HD
MTP T 15HD A AAP/D/WM.....	1 female 15-pin HD
Nominal level.....	1 V p-p for Y of component video and S-video, and for composite video
	0.7 V p-p for RGB
	0.3 V p-p for R-Y and B-Y of component video, and for C of S-video
Minimum/maximum levels	0.3 V to 1.45 V p-p
Impedance	75 ohms
Horizontal frequency.....	15 kHz to 130 kHz
Vertical frequency	30 Hz to 150 Hz
Return loss	<-30 dB @ 5 MHz
DC offset (max. allowable).....	250 mV

VIDEO OUTPUT – RECEIVERS

Number/signal type	
MTP R 15HD A	1 analog RGBHV, RGBS, RGsB, RsGsBs, component video, S-video, or composite video
MTP RL 15HD A, MTP RL 15HD A SEQ	1 set of proprietary analog signals
	1 analog RGBHV, RGBS, RGsB, RsGsBs, component video, S-video, or composite video
Connectors	
MTP R 15HD A	1 female 15-pin HD
MTP RL 15HD A, MTP RL 15HD A SEQ	1 female RJ 45
	1 female 15-pin HD
Nominal level.....	1 V p-p for Y of component video and S-video, and for composite video
	0.7 V p-p for RGB
	0.3 V p-p for R-Y and B-Y of component video, and for C of S-video
Minimum/maximum levels	0.3 V to 1.45 V p-p
Impedance	75 ohms
Return loss	<-30 dB @ 5 MHz
DC offset	<±20 mV with input at 0 offset

SYNC

Input type (transmitters)	RGBHV, RGBS, RGsB, RsGsBs
Output type (receivers)	RGBHV, RGBS, RGsB, RsGsBs
Standards.....	NTSC 3.58, NTSC 4.43, PAL, SECAM
Input level (transmitter)	3.5 V to 5.5 V p-p, unterminated
Output level (receivers)	4.0 V to 5.0 V p-p, unterminated
Input impedance (transmitter)	510 ohms
Output impedance (receivers)	110 ohms
Max. input voltage (transmitter)	5.5 V p-p
Polarity	
Transmitter	Positive or negative (follows input polarity)
Receivers.....	Positive or negative (switch-selectable)

AUDIO

Number/signal type.....	1 set of proprietary analog signals
Connectors	1 female RJ-45
Gain	Unbalanced output: 0 dB; balanced output: +6 dB
Frequency response	20 Hz to 20 kHz, ±1 dB
THD + Noise	0.15% @ 1 kHz, 0.3% @ 20 kHz at nominal level
S/N	>70 dB at maximum output (unweighted)
CMRR	>43 dB @ 20 Hz to 20 kHz

AUDIO INPUT – TRANSMITTERS

Number/signal type	1 stereo, unbalanced
Connectors	(1) 3.5 mm mini stereo jack
Impedance	>10k ohms, unbalanced
Nominal level.....	+4 dBu (1.23 Vrms), -10 dBV (316 mVrms)
Maximum level	+18 dBu, (unbalanced) at 1%THD+N
NOTE: 0 dBu = 0.775 Vrms, 0 dBV = 1 Vrms, 0 dBV≈ 2 dBu	

AUDIO OUTPUT – RECEIVERS

Number/signal type	2 mono, balanced/unbalanced
Connectors	(1) 3.5 mm captive screw connector, 5 pole
Impedance	50 ohms unbalanced, 100 ohms balanced
Nominal level.....	+4 dBu (1.23 Vrms), -10 dBV (316 mVrms)
Maximum level	+18 dBu, unbalanced at 1% THD+N

GENERAL

External power supply.....	100 VAC to 240 VAC, 50/60 Hz, external, autoswitchable; to 12 VDC, 1 A, regulated
Power input requirements.....	12 VDC, 0.5 A
Rack mount	Yes, with optional 1U rack shelf, part #60-190-01 or 60-604-01; or VersaTools® rack shelf, part #60-190-20 or 60-604-20
	Also furniture mountable with optional Mini Under-Desk Mounting Kit, part #70-212-01; or projector mountable with optional projector mounting kit, part #70-217-01
Enclosure type	Metal
Enclosure dimensions	1.7" H x 4.3" W x 3.0" D (1U high, quarter rack wide)
	4.3 cm H x 10.9 cm W x 7.6 cm D (Depth excludes connectors.)
Product weight	0.4 lbs (0.2 kg)
Shipping weight	2 lbs (1 kg)
Listings	UL, CUL
Compliances.....	CE, FCC Class A, VCCI, AS/NZS, ICES
NOTE: All nominal levels are at ±10%	

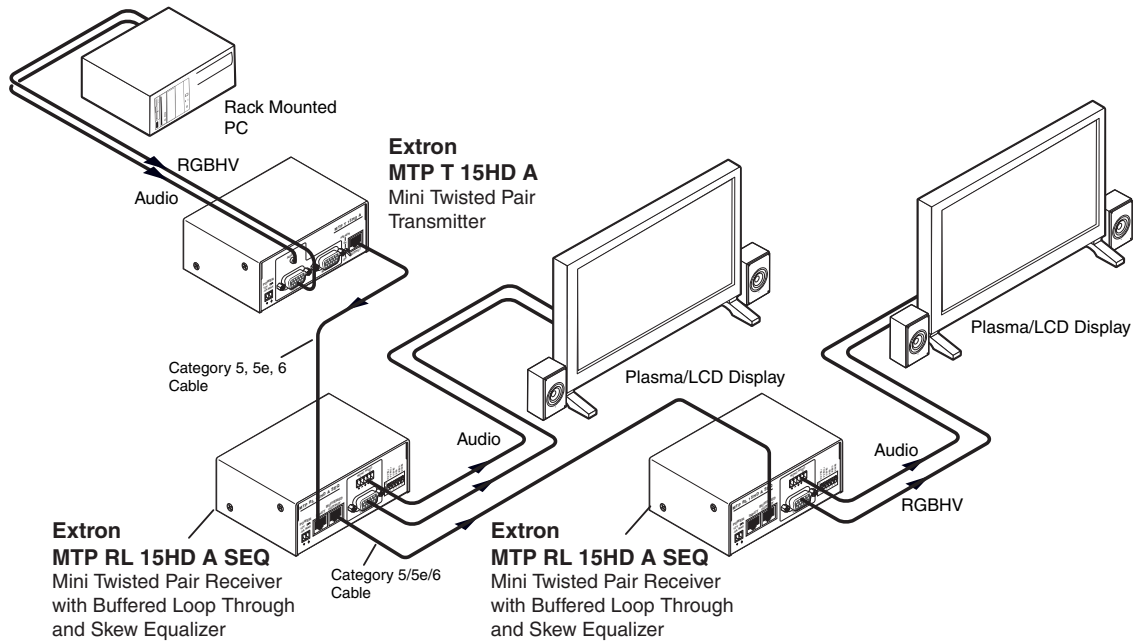
Model	Description	Part Number
Transmitters		
MTP T 15HD A	RGBHV & Audio Transmitter	60-669-01
MTP T 15HD A WM	Wall Mount Version - Black	60-691-02
MTP T 15HD A WM	Wall Mount Version - White	60-691-03
MTP T 15HD A D	Decora Version - White	60-798-03
MTP T 15HD A AAP	AAP Version - Black	70-558-02
MTP T 15HD A AAP	AAP Version - White	70-558-03
MTP T 15HD A AAP	AAP Version - RAL9010 White	70-558-05
Receivers		
MTP R 15HD A	Receiver	60-670-01
MTP RL 15HD A	Receiver w/Loop Through.....	60-690-01
MTP RL 15HD A SEQ	Receiver w/Loop Through & Skew Equalizer	60-690-02

Optional Accessories

VersaTools Rack Shelf Kit	60-190-20
1U Universal Rack Shelf Kit	60-190-01
Mini Under-desk Mount Kit.....	70-212-01

Specifications are subject to change without notice.

APPLICATION DIAGRAM



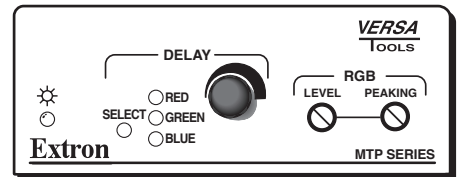
PANEL DRAWINGS



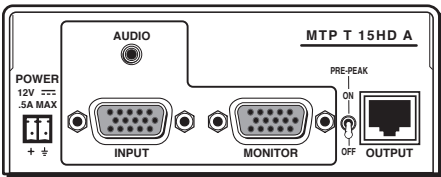
MTP T 15HD A - Front



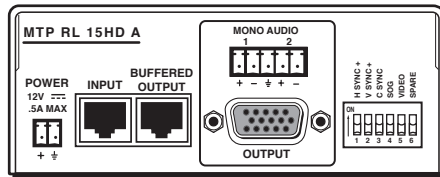
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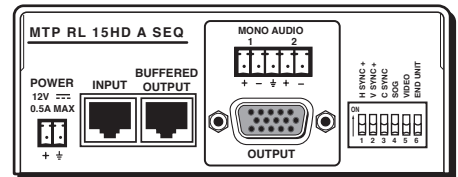
MTP RL 15HD A SEQ - Front



MTP T 15HD A - Back



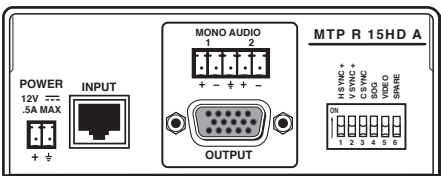
MTP RL 15HD A - Back



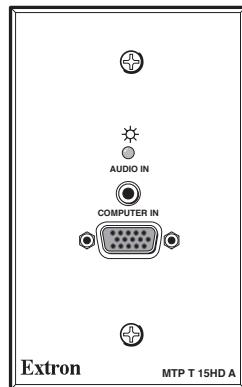
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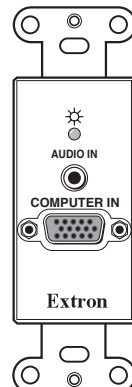
MTP R 15HD A - Front



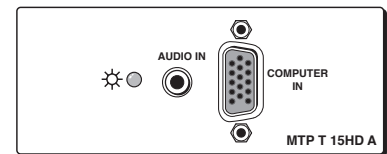
MTP R 15HD A - Back



MTP T 15HD A WM - Front



MTP T 15HD A D - Front



MTP T 15HD A AAP - Front



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